

Project Proposal form

Learner Name

Learner number

Centre Name

Havering Sixth Form College

Centre Number

12828

Teacher Assessor

Date

Unit **P304 - Artefact**

Proposed project title

I have been commissioned by Havering Council to design a new approach to economically viable popular eco-friendly social housing, culminating in a scale model of my design.

Section One: Title, objective, responsibilities

Title or working title of project (in the form of a question, commission or design brief)

I have been commissioned by Havering Council to design a new approach to economically viable popular eco-friendly social housing, culminating in a scale model of my design.

Project objectives (e.g., what is the question you want to answer? What do you want to learn how to do?)

What do you want to find out?):

- My aim is to find out whether it is possible to create a new approach for homes in the future that are economically viable and available to most of the society as well as being eco-friendly and good for the environment. It is also key to me that they are aesthetically pleasing and good looking to the eye.
- I will investigate whether is possible to blend design of homes with the functionality of saving energy and making it a green home.
- I am planning to investigate the pros and cons of eco housing and what issues building these eco homes may cause such as what materials will be used as well as placement of these homes. I will research what modern designs are like and blend this design with the functionality of green homes to create a version of what a green, aesthetically pleasing home may look like for the future.
- I will look at varied materials and how each of them affects the environment such as wood and concrete and see what impact using these materials causes on the environment and then use

this material to create a model of a home or building that will be created in such a way to be an eco-home and reduce the co2 emissions at the same time of being a beautiful home - looking at the sustainable design.

- I want to learn how to create and produce an accurate scale model of a design and learn new skills to create the model. I would like to learn how to use the Workshop which includes: the laser and wood cutter, cutting wood, working within a given scale and health and safety skills to make sure I am able to reduce a model in a safe manner.
- I will create a scale model, which shows the plan of an eco-residential and what materials are used. It will show the modern sleek design merged with the eco sustainable design. The model will display my new approach to economically viable, popular, eco-friendly social housing.
- I will look at the prices of eco homes and their materials to make sure they are able to be afforded by people in need of social housing from the council. As a result, I want the council to use this new approach when creating social housing to make the new builds sustainable and economically viable.
- I want to create a presentation and present the journey of making model and what materials I have used in my scale model and in which way this makes it a sustainable eco home.

If it is a group project, what will your responsibilities be?

N/a

Section Two: Reasons for choosing this project

Reasons for choosing the project (e.g., links to other subjects you are studying, personal interest, future, knowledge/skills you want to improve, why the topic is important):

- I chose this title because I am interested in architecture from an early age and always wanted to create and build buildings and structure. As I watched home renovations shows and different other home style shows which built my interest in architecture and as a result made me want to become an architect in the future.
- As an Architecture and Interior design student, I really enjoy study architecture and looking for original approaches in the architecture world where many things have already been done before. I want to be able to be able to use the basis of my skills that I have gained for architecture course and build on this to create a scale model.
- I want to learn new skills such as woodworking and 3d printing which will help me in the future for when I will peruse architecture at university. I will learn new skills and use these skills to create an accurate and aesthetically pleasing scale model of a sustainable eco home.
- Further, I am interested in ways to save the planet and environment and how in many ways we can reduce carbon emissions and be green to save our planet from pollution. With my joy for

architecture, I could make eco homes which will reduce the CO2 emissions and let the planet live longer and healthier and will benefit the world in many ways such as: Economic, Social and Environmental. There is a high importance of thinking about the environment as we need to protect the planet for our generation and other generations yet to come. There are many ways to protect the planet but where architects create homes for hundreds of years, they should be able to be sustainable and protect the environment instead of harming it further through bad design.

- I have chosen to be commissioned by the borough of Havering as this is where I go to college and spend a lot of time during the week in. Many friends live in the borough, and it is important to reduce carbon emissions especially in places where there are a lot of schools and colleges nearby to take care of not only the surroundings but also our own health
- According to Data published by Architecture 2030, the built environment produces nearly 50% of the carbon emissions. Where of those total emissions, building operations are responsible for 27% annually, while building materials and construction are responsible for a further 20%. This means Architecture is one of the biggest carbon emitters in the world, where this number can be reduced by the materials we use as architects and by the energy our homes use. From these statistics the need for Reduce, Reuse, recycle has significantly increased as materials such as wood and steel are constantly produced where there are existing pieces which have the same properties which can reduce the waste produced.

<https://architecture2030.org/why-the-building-sector/>

- As time moves on, climate change is constantly affecting the world increasingly, with the amount of carbon emissions from cars but also buildings which are constantly being built which add to the carbon footprint which mean more resources being made, more energy being used to create and build these buildings as well as the energy to heat and cool the structures. According to blueprint for better, if we do not reduce our current global CO2 emissions by 65% by 2030—and then to 0% by 2040—climate change will become irreversible. Which is the opposite of what we want and with the use of eco-friendly architecture we can hopefully stop climate change.
- I would like to use this chance to be able to further investigate what I am interested in and develop my architectural skills. I would improve my researching skills in preparation for university where I would like to study architecture so I would be able to progress to become a professional architect. In the future my goal would be to care about the environment within my designs and make sure any project I work on would not harm the surroundings.

Section Three: Activities and timescales

Activities to be carried out during the project (e.g., research, development, and analysis of ideas, writing, data collection, numerical analysis, rehearsal techniques, production meetings, production of outcome, administration, evaluation, preparing for the presentation, etc):

How long this will take:

Research:

I will use this time to research ideas on how to make buildings attractive and eco at the same time through looking at modern houses and what architecture is now in the 21st Century.

Investigate green homes and how architects have made them green with which materials they used, what energy they use, where they are placed and their surroundings and more.

I will investigate the pros and cons of these eco housing and look at the things stopping us from building more eco homes and I will show how it is possible to overcome these issues and the benefits there would be because of building these homes.

I will research the materials that the model can be made out of as well as their costs to make sure they are available to many people.

I will look at the policies around Social Housing in Havering, and what are the requirements to create a residential eco home.

Use this research to plan a way of merging design with sustainability to create an approach to create these new residential.

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till 8.10.22

Research of Green homes and Council Policy: till 11.11.22

Development of Idea:

I will start to develop designs of eco homes that fit the requirements of social housing in Havering. Create sketches which will include, elevations, plan views and perspectives of my model and annotate how the home can be green at the same time being aesthetically pleasing. I will experiment with the workshop and learn woodworking skills as well as using the 3d Printer. Look at the materials I can use and how they can suggest the eco-friendly alternatives which I would like the eco home to be made of.

Making the model:

I will use my sketches and research to make a model in 3D out of materials such as wood, paper, cotton, acrylic and wire, that will suggest eco-friendly alternative that we can use.

I will use my skills of wood working and 3d printing to put together my model of an original approach to sustainable eco housing.

I will create a shape that will be interesting and unique and paint it colours that will help the environment as well as make it look sleek and modern.

I will create this model with aspects of being an eco-home, which may include Solar panels, lots of trees nearby and other things that I may have researched and included in my designs.

Writing about the model:

Once I have created the model, I will write about how the model went and what went well and what could need improving.

I will annotate the materials used and compare how the sustainable materials used in an eco-home and explain how they differ traditional materials.

I will show about how I have incorporated my research from other designs and architects into my ideas like how the materials I have used will help the environment and how they will help reduce the carbon emissions.

I will also write about the benefits that the model may bring to the area whether it be an economic, social, or environmental benefit of my model.

I will say how I have met the requirements of social housing in Havering to make sure my new approach works for its purpose.

Conclusion & Evaluation:

In my conclusion, I will summarise my journey of creating the scale model and how I was successful to fulfil my title and whether I have been able to create an original approach to a residential home that is eco-friendly and economically viable as well as aesthetically pleasing.

I am going to prepare and practice for my final presentation to talk about and show in which ways I have been able to create this new approach to social housing which is eco-friendly and sustainable.

I will be able to present my journey on a PowerPoint alongside the 3D model to show the journey and research that I made to be able to finish the model.

I will reflect on my entire EPQ and say what was strong and what would need improving and what I would have done if I did it again.

I will say how I have fulfilled the requirements for Havering Social Housing and whether my model would have been successful for their needs.

Skill Learning and Development of Idea:
till
16.12.22

Model Construction: till
3.02.23

Presenting and
annotating the model:
till 24.03.23

Final Presentation and
Conclusion: 27.03.23

Milestone one:

By the following time I am to finish my research on social housing in Havering as well as all research on eco homes and how to make them sustainable and economically viable. I plan to finish my development process of my model by a series of drawings of plans and elevations of the space. Find out and experiment with materials I can use to make the scale model. Therefore, I would have a clear idea of the style and materials I use within my scale model.

Target date (set by tutor-assessor): 16.12.2023

Milestone two:

At this point, I should have created an accurate scale model of my design. I will highlight how the residential fits all the requirements and start to show annotations surrounding the model, that make the home eco-friendly. This would be before my final presentation.

Target date (set by tutor-assessor) 03.03.2023

Section Four: Resources

What resources will you need for your research, write up and presentation (e.g., libraries, books, journals, equipment, rehearsal space, technology and equipment, venue, physical resources, finance):

To complete my research, I will use the computers and use architecture websites and google to find out how previous green homes and modern designs are made out.

- I will be using computers to make my PowerPoint and write about my model and present my research.
- Use the internet to research websites of eco homes that exist and websites about social housing and Havering policies.
- I will use paper and pencil and pens to create sketches of my models and develop my idea of the model.
- I will work on my project on my EPQ at home, in lessons and outside of lessons in college to complete research and produce a model.
- I will use the college workshop and work with Kyle (from the workshop) to carry things out safely.
- I will use the wood cutters, laser cutters, saws, glue, knives to create my model alongside other equipment from the workshop that I might need.
- I will use the 3d printer for intricate details that would need to create.
- I will use wood, cotton, wire, paper, acrylic
- I will need a printer to be able to display my annotations to my scale model to show what materials are used.

What your areas of research will cover?

My area of research will cover the modern architecture and what looks good in the modern day. I will look at the pros and cons of eco homes.

I will research how existing eco homes have been built and what they used and how they were designed. I want to explore ways eco homes may be built to reduce the CO2 emissions.

I will look at the prices and materials which can be used as alternative to traditional building materials.

I will research the requirements and policies of Havering Council to make a social housing which meets all the needs for who it is built for.

I will try to contact the Havering Council to find out their policy and any other information they may give about sustainable social housing and if they have already taken an approach with eco-friendly architecture.

I will visit sites in Havering that have already been created with a sustainable approach.

Comments and agreement from tutor-assessor

Is the learner taking this project as part of the Diploma?

No

If yes, which Diploma are they taking? _____

Comments (optional):

Is the project derived from work which has been/will be submitted for another qualification? **No**

Which qualification (title and unit)? _____

Comments (optional):

I confirm that the project is not work which has been or will be submitted for another qualification and is appropriate.

Agreed: _____

(name)

(date)

Comments and agreement from project proposal checker

Comments (optional):

I confirm that the project is appropriate.

Agreed: Phil Hall (name) (date)